

Notice of Allowability

Application No.

10/566,349

Examiner

Irakli Kiknadze

Applicant(s)

LEVENE ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 3/12/2007.
2. ☒ The allowed claim(s) is/are 1-13, 15-18 and 20-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 01/27/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. In response to the Office action dated January 19, 2007 the Amendment has been received on March 12, 2007.

Claims 1 and 18 have been amended.

Claims 14 and 19 have been canceled.

Claim 22 has been newly added.

Claims 1-13, 15-18 and 20-22 are currently pending in this application.

Allowable Subject Matter

2. Claims 1-13, 15-18 and 20-22 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 1 is allowed because prior art fails to teach or make obvious an x-ray tube comprising a source of electrons including a filament having a greater width in a region of the filament which emits electrons that strike a portion of a target area on a first annular portion and a smaller width in a region which emits electrons which strike the portion of the target area on a second annular portion as claimed including all of the remaining limitations of the claim. Claims 2-13 and 15-17 are allowed by virtue of their dependence.

Claim 18 is allowed because prior art fails to teach or make obvious a method for generating a beam of x-rays, comprising: generating electrons such that a portion of a electron beam which strikes a target area on a first annular portion has a greater

electron current density than a portion of the electron beam which strikes the part of the target on a second annular portion as claimed including all of the remaining limitations of the claim. Claims 20 and 21 are allowed by virtue of their dependence.

Claim 22 is allowed because prior art fails to teach or make obvious an x-ray tube, comprising: an electron source that emits electrons towards a target area such that a portion of the electron beam that strikes the target area on a first annular portion has a greater electron current density than a portion of the electron beam which strikes the target area on a second annular portion as claimed including all of the remaining limitations of the claim.

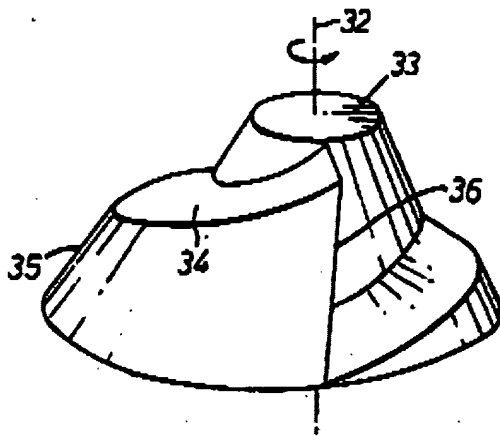
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

4. Applicant's arguments, see pages 6-8, filed March 12, 2007, with respect to claims 1-13, 15-18 and 20-22 have been fully considered and are persuasive. The rejection of claims 1-13, 16-18 and 21 and objection of claim 15 and 20 has been withdrawn.

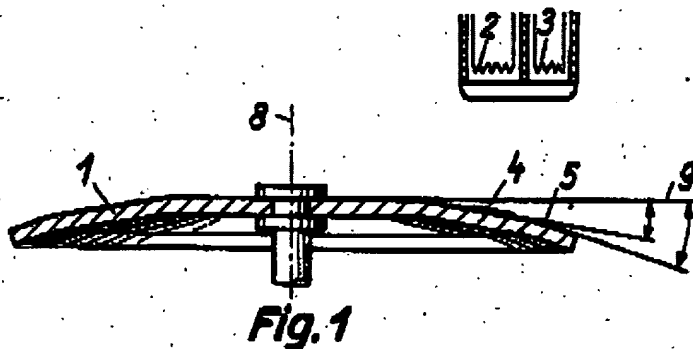
Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamamura et al. (US Patent 4,287,420) and Seki (US Patent 3,610,984) teach an x-ray tube comprising two different size filaments for stereoscopic imaging. Oddell (US Patent 4,107,563) as shown in Figure bellow



and Silbermann (US Patent 2,942,126) as

shown in Fig.1 bellow



teach anode defining a

sloped peripheral region on which a target area is defined, which target area is struck by electrons emitted by the electron source and emits x-rays, the sloped peripheral region including a first annular portion, and a second annular portion, adjacent the first portion, sloped at a second angle, relative to the plane, but fail to teach an electron source

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arrangement wherein, the source of electrons includes a filament having a greater width in a region of the filament which emits electrons that strike the portion of the target area on the first annular portion and a smaller width in a region which emits electrons which strike the portion of the target area on the second annular portion.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Irakli Kiknadze
March 17, 2007



EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER